

Maryland's Dairy Industry: 2018

**A Report
To
Governor Larry Hogan**

**From
The Maryland Dairy Industry Oversight and Advisory Council**

October 2018

Members of the Dairy Advisory Council

Samuel G. Tressler III – *Chairman*, Dairy farmer, Mount Airy
Amanda Rife - Land 'O Lakes Dairy Cooperative
Louis 'Pete' DeBaugh – Dairy Farmers of America Cooperative
Jody Vona – Dairy Maid Dairy, Frederick
Joseph Milazzo – Marva Maid Dairy, Landover
Kim Young – Milk hauler, Frederick
William Chomicki – Maryland & Virginia Milk Producers Cooperative, Laurel
Marla Caplon – Montgomery County School System
Michael Haines – Dairy farmer, Taneytown
Janet Stiles Fulton – Dairy farmer, Boonsboro
Phyllis Kilby – Dairy farmer, Colora
Matt Hoff – Dairy farmer, New Windsor

Non-voting members

Delegate Jay Jacobs, Rock Hall
State Senator J.B. Jennings, Bel Air
Steve Connelly, Assistant Secretary, Maryland Department of Agriculture
Dr. Robert Peters, University of Maryland College of Agriculture and Natural Resources
Kyle Shannon, Chief, Center for Milk and Dairy Product Safety, Office of Food
Protection, Maryland Department of Health
Barbara Brookmyer, Health Officer, Frederick County Health Department

Staff

Cheryl Eichelberger, Maryland Department of Health
(301) 791-4779; cheryl.eichelberger@maryland.gov
Mark S. Powell, Maryland Department of Agriculture
(410) 841-5775; mark.powell@maryland.gov

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Executive Summary

The Governor's Maryland Dairy Industry Oversight and Advisory Council is charged with improving and sustaining the economic viability of Maryland's dairy industry and reporting annually to the Governor. This report to Governor Larry Hogan represents the recommendations of a committee that includes milk processors, dairy farmers, dairy cooperative leaders, Maryland Farm Bureau members, Maryland Grange members, and consumers, as well as representatives from state and local health departments, agriculture departments, the Maryland Department of Agriculture, the General Assembly, and University of Maryland officials.

During 2018, Maryland's dairy farmers continue to do their best to manage low income from low milk prices. The State lost 31 dairy farms from October 2017 to October 2018. There are now 380 dairy farming operations left. In the last decade, farm numbers have fallen by 181.

Broken down by county, dairy farms are located in: Baltimore, 7 farms; Caroline, 4; Carroll, 33; Cecil 32; Charles, 1; Frederick, 70; Garrett, 51; Harford, 23; Howard, 2; Kent, 12; Montgomery, 5; Prince George's, 2; Queen Anne's, 6; St. Mary's, 13; Talbot, 5; Washington, 113; and, Worcester, 1.

According to the U.S. Department of Agriculture, Maryland had about 47,000 dairy cows in January of 2018. That's down from 57,000 a decade ago.

Maryland's current milk processing capacity includes 55 operations (Attachment 2). There are 6 large, commercial dairy processors. The rest are smaller, on-farm processors. Since June 2016, Lanco Dairy Farms Coop, LLC., www.lancopennland.com based in Hagerstown, Maryland, has been operating a dairy processing plant in Hancock, which is producing cheese, pasteurized condensed milk and cream. Processors in the state annually process more than 10 billion pounds of milk, according to the Maryland Department of Health and the Federal Milk Market Order. More than 40,000 loads of milk are hauled from farms throughout the Mid-Atlantic to Maryland processors each year. Final products of all types are shipped throughout the nation and the world from

Maryland. One plant, Nestle Dreyers Ice Cream in Laurel, is among the largest ice cream factories in the world. www.nestle.com

Attachment 1 of this report provides an economic analysis of Maryland's dairy sector by University of Maryland economist Dr. Howard Leathers.

In 2018, this Advisory Council asked that Governor Hogan's Administration encourage direct support for dairy farmers from the U.S. Department of Agriculture due to the industry's economic crisis. The Council also asked Maryland Department of Agriculture Secretary Joe Bartenfelder and Governor Hogan to contact the federal Food and Drug Administration to encourage that agency to enforce laws that would prevent the labeling of plant-based beverages as 'milk.'

The FDA issued a statement in late September saying it has concerns that the labeling of some plant-based products may lead consumers to believe that those products have the same key nutritional attributes as dairy products, even though these products can vary widely in their nutritional content. FDA said it is important that it better understand consumers' expectations of these plant-based products compared to dairy products.

FDA has taken the first step in its process by issuing a request for information (RFI) in the Federal Register to solicit comments and feedback for 60 days from the public to gain more insight into how consumers use plant-based alternatives and how they understand terms like "milk" or "cheese" when used to label products made, for example, from soy, peas or nuts. "We're interested to know if consumers are aware of, and understand, the nutritional characteristics and differences among these products -- and between these products and dairy -- when they make dietary choices for themselves and their families," Gottlieb said.

Over the next year, the FDA will be looking at next steps, which will include issuing guidance for industry. This would clarify FDA's thinking regarding the labeling of plant-based products with names that include the names of dairy foods while giving manufacturers adequate notice about any changes.

Also in 2018, the U.S. Department of Agriculture initiated several programs to support the dairy industry nationally as low prices take a toll. On August 8, USDA Risk Management Agency (RMA) announced a new Dairy Revenue Protection program that insures against unexpected declines in quarterly revenue from milk sales. Sign-up for the new product started, Oct. 9, with the first available coverage starting the first quarter of 2019.

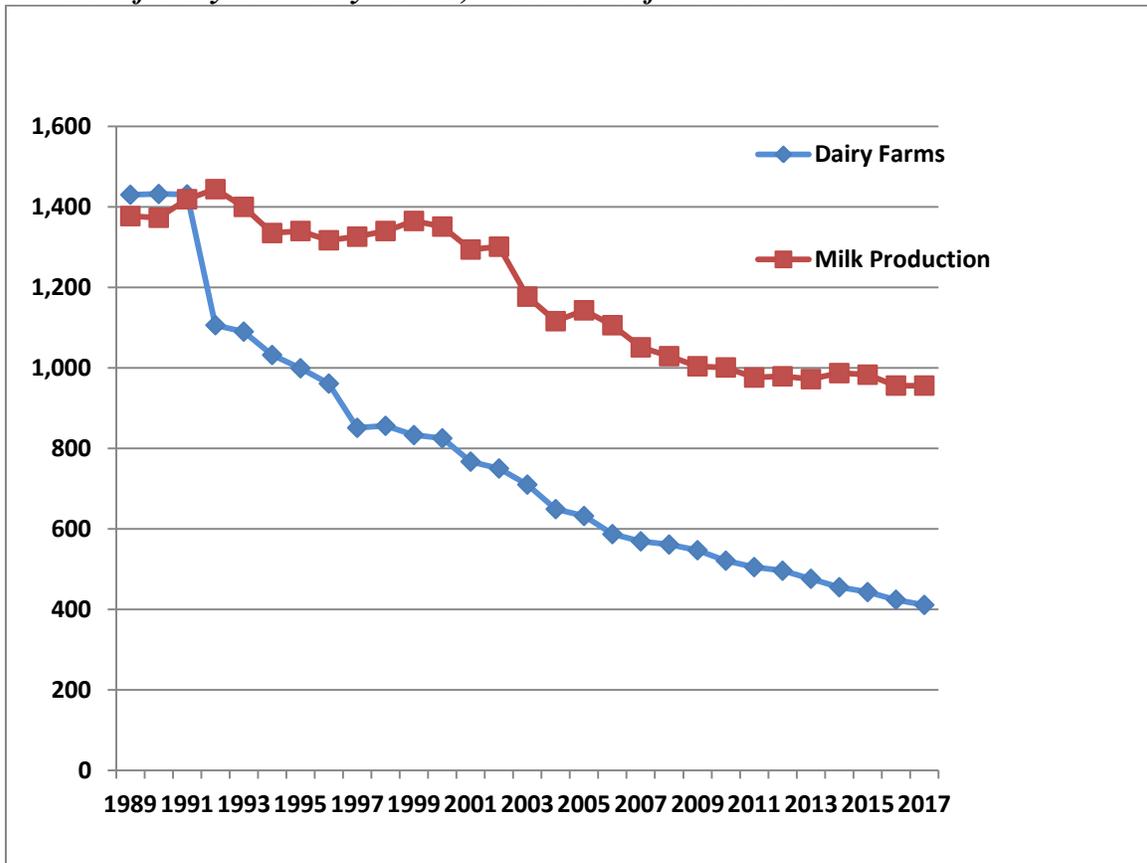
On Aug. 14, USDA announced plans to purchase fluid milk in half-gallons for distribution to The Emergency Food Assistance Program (TEFAP). Purchases will be made under the authority of Section 32 of the Act of August 24, 1935. This is the first time that the Government has purchased fluid milk under this authority. On Sept. 4, U.S. Secretary of Agriculture Sonny Perdue launched a trade mitigation package to assist farmers adversely affected by recent trade actions of foreign countries. The package includes three programs: (1) a Market Facilitation Program that will provide payments to producers of designated agricultural products; (2) a Food Purchase and Distribution Program that will distribute designated commodities through nutrition assistance programs; and (3) an Agricultural Trade and Promotion Program to develop foreign markets for agricultural products.

Also in 2018, regional meetings in New York including representatives from Maryland Department of Agriculture looked at potential models of risk management and federal support for dairy farming to promote for the new Farm Bill. Speakers to the Advisory Council detailed these concepts as the Council, MDA and DOH continue to monitor federal dairy policy with the goal of looking for strategies that support a future for the dairy industry in Maryland.

The Advisory Council recommends that Governor Larry Hogan, the General Assembly and relevant state agencies:

1. Continue to prohibit the sale of raw milk for human consumption in Maryland.
2. Develop risk management policy recommendations to the Maryland Congressional Delegation that will support the economic viability of Maryland's dairy farmers.
3. Promote the importance of the Maryland dairy industry to the general public.

Number of Maryland Dairy Farms, Production of Milk in State



The number of dairy farms in Maryland has continuously declined since 1992. Total production has remained relatively stable since 2009, although there was a slight decrease in 2016. Projections for 2017 production align with 2016 figures.

2018 Recommendations

Recommendation 1:

The Governor and the General Assembly should continue to prohibit the sale of raw milk directly to Maryland consumers for human consumption.

The Council is certain that the health risks associated with raw milk consumption are based on well documented, sound science, and repeats its recommendation against allowing the sale of raw milk directly to consumers for public consumption. Pathogens in milk can cause very serious, sometimes life altering conditions, and sometimes even death.

The only method proven to be reliable in reducing the level of pathogens in milk and milk products is proper pasteurization. Should raw milk be allowed for sale directly to the consumer, MDH anticipates an increase in the number of milk-related outbreaks and will likely incur more costs and require additional staffing for the routine regulation of raw milk as well as in the investigation and control of these outbreaks.

Recommendation 2: Develop risk management policy recommendations to the Maryland Congressional Delegation that will support the economic viability of Maryland's dairy farmers.

As this report is being written, American Farm Bureau Federation and other organizations are developing financial risk management tools to better serve dairy farmers. It is important that Maryland Department of Agriculture and other ag organizations follow and analyze these policy recommendations in order to provide insight to Maryland's Congressional delegation and the federal Administration where necessary.

Recommendation 3:

Maryland Department of Agriculture and other state entities should promote the value and importance of the state's dairy industry to the general public.

MDA should continue its current promotions of the Maryland Ice Cream Trail and do additional press releases and media outreach to increase the public's awareness of the dairy industry's importance.

Recommendation 4:

Maryland Department of Agriculture should work with the U.S. Food and Drug Administration to ensure that plant-based beverages are not marketed as milk.

Attachment 1

Dairy Situation and Outlook, October 2018

Howard Leathers
University of Maryland, College Park, Md.

This report discusses the three most important factors influencing the financial health of dairy farmers in Maryland and discusses the outlook for the upcoming year. The three factors are: (1) milk prices; (2) feed prices; and (3) the regulatory and policy environment.

Milk Prices

Over the past few years, Maryland milk prices have varied greatly – averaging almost \$25 per hundredweight (cwt.) in 2014, and falling to about \$17/cwt in 2016. The monthly low was \$15.30 in May of 2016, but prices have rebounded since then. They reached about \$19.50 in January 2017, and now (in late summer of 2018) are in the range of \$16.50-\$17.50.

The outlook for Maryland’s dairy farmers is for milk prices to be steady through the spring of 2019, and then to rise modestly in summer of 2019.

Maryland Milk Prices 2016 to 2019.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2016	16.76	16.44	15.85	15.75	15.30	15.40	16.58	17.42	17.78	17.27	18.06	19.33	17.20
2017	19.51	19.01	18.09	17.05	17.11	17.83	18.00	18.63	18.44	18.24	18.38	17.67	17.80
2018	17.18	15.60	15.83	16.27	16.44	16.65	15.75	16.25	17.50	17.61	17.85	17.81	16.73
2019	17.64	17.57	17.59	17.74	17.75	17.84	18.01	18.23	18.35				18.00

Estimated Maryland Milk Prices (Jan 2016 to Sep 2018). Projected Maryland Milk prices (Oct 2018 to Dec 2019). 2016 and 2017 annual price is not estimated or projected, but is calculated from 2016 and 2017 State Agricultural Overview USDA/NASS.

Feed Prices

During the 2008-2014 period, analysts of the dairy farm sector began to put more and more attention on the threat of high feed costs. Dairy subsidy programs, which for decades had operated with the intention of keeping milk prices high, were modified to

make payments based on a combination of relatively low milk prices and relatively high feed prices.

However, since 2014 feed costs have been relatively low and stable. In the years 2011-13, corn prices averaged \$6.28/bushel; but since August 2014, corn prices have always been below \$3.85 and are currently in the mid-\$3 range. In the high price 2011-13 period, soybean prices averaged \$13.52; since January 2015, soybean prices have (with only a few monthly exceptions) been below \$10, and during the summer of 2018, fell into the \$8 range.

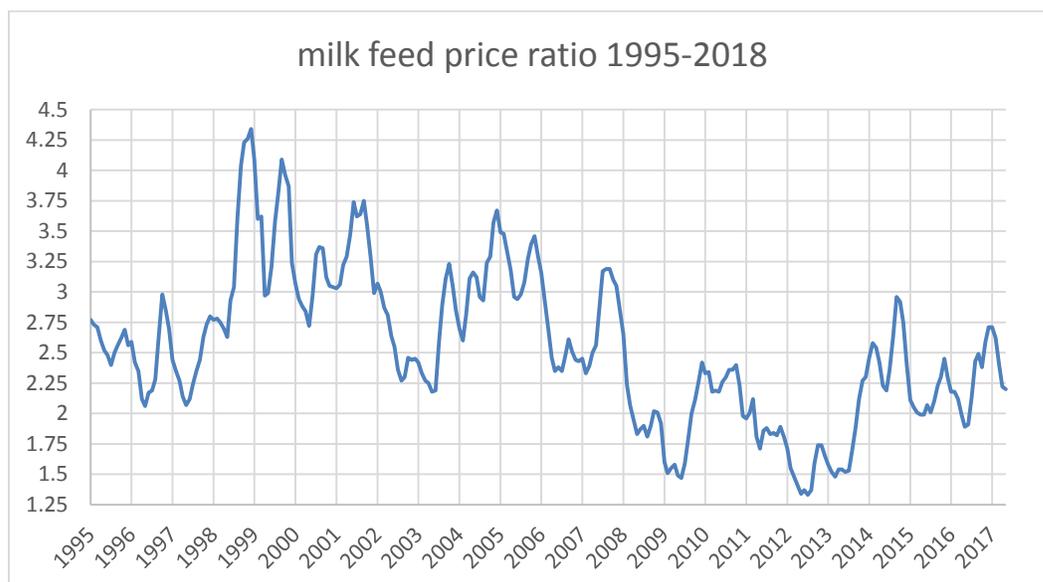
Futures market prices in fall 2018 reflect the opinion of market traders that corn prices will rise modestly throughout the next year – in the \$3.80-\$4.00 in 2019. Soybean futures show a similar pattern – rising modestly to low \$9 range during 2019.

Milk-Feed Price Ratio and “Gross Margin”

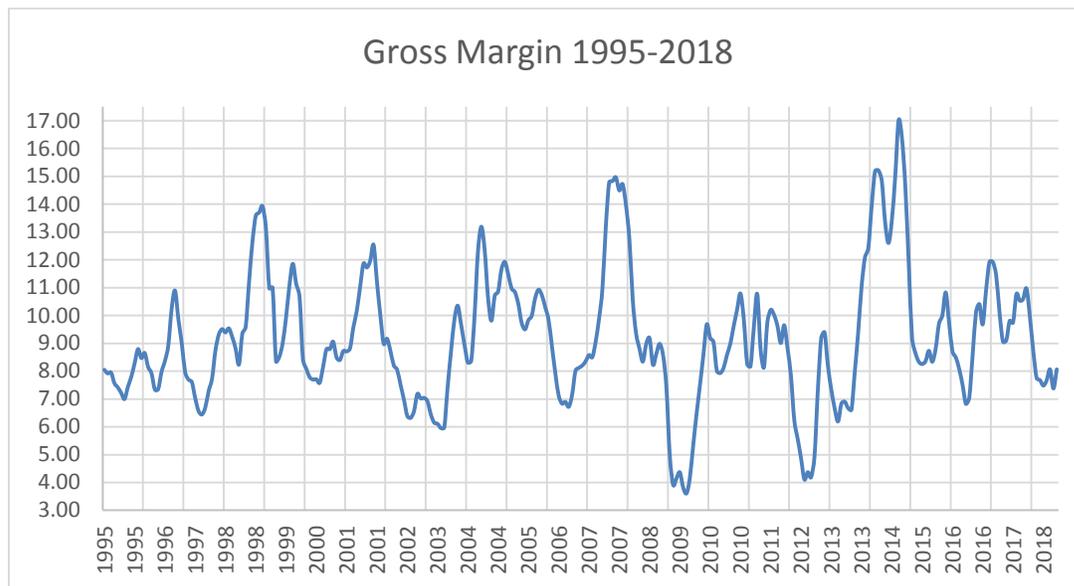
Two commonly used measures of economic health of the dairy industry reflect both milk prices and feed prices, as measured by a formula that estimates the feed costs (corn, soy, and hay) associated with producing 100 pounds of milk. The two measures combine these prices in different ways. These two measures are the “milk-feed price ratio” and the “gross margin”.

The “milk-feed price ratio” (as the name suggests) is calculated as the milk price divided by the feed price. A high ratio means that milk prices are high relative to feed prices, and therefore times are good for dairy farmers. A low ratio means times are bad.

For decades, the milk-price ratio was above 2; however, in the 2008-2013 period, the ratio frequently fell below 2. It did rise to nearly 3 in the “glory year” of 2014 when the milk price reached \$25.00.



The “gross margin” is calculated as the milk price minus the dairy feed ration price. This measure has become a more popular way of looking at dairy farmer financial health. A “crop insurance” policy has been developed that allows dairy farmers to insure against a level of gross margin; and the 2014 farm bill introduced a new dairy subsidy program (the Dairy Margin Protection Program, or MPP) that makes subsidy payments based on the extent to which gross margins fall below specified levels. Of course, the two measures (milk price ratio and gross margin) are built upon the same fundamental price measures, so they will show the same general pattern, though not the exact same values.



During the “hard times” of May-July 2012 one measure of the gross margin (all milk price minus 16% feed ration price per cwt of milk produced) was in the low \$4 range. During the “strong price” period of 2014, the gross margin averaged in the reached a high of \$17. Since 2015 the gross margin has been in the \$7-\$12 range, hovering at \$8 in recent months.

As described above, looking forward to the upcoming year, we anticipate that dairy margins facing farmers will remain at current levels. Futures markets predict that the 2017 average milk price will be up about \$1.40 over the 2016 average and the 2018 average will be lower by about 90 cents than the 2017 average. Feed prices are expected to show the same general pattern as milk prices – bottoming out in winter/spring of 2018 and rising modestly thereafter. Therefore, the prospect for dairy margins is that they will be well above \$8 in every month over the 2017-18 period.

Regulatory and Policy Impacts on Dairy Farmers.

The financial health of dairy farmers is also affected by actions and decisions of government.

At the federal level, the 2014 farm bill adopted a radical change in the programs intended to help dairy farmers. The principal new program in that bill (the Margin Protection Program, or MPP) promised payments to dairy farmers when gross margins fall below \$4. But as the above discussion notes, gross margins haven't been below \$4 often. (Farmers were given the option of "buying up" to higher guaranteed margins, in 50 cent increments up to \$8, but this required premium payments, and in 2017, only 4 Maryland farmers opted for a buy-up, and the highest buy-up was at the \$6.50 trigger level.)

As the 2018 Farm Bill process got underway in 2017, it was widely said that the 2014 farm bill dairy provisions had not worked as well as anticipated to help dairy farmers. That was addressed with the passage of the Bipartisan Budget Act, in February 2018 and the two current versions of the 2018 farm bill – one passed in the Senate in late June and one passed in the House of Representatives in mid June – we are able to make a fairly good guess of the dairy provisions in the 2018 farm bill.

The general structure of dairy program under the new farm bill will be similar in structure to the Margin Protection Program (MPP) authorized by the 2014 farm bill. As a reminder, that structure is this:

- A price-feed cost margin is calculated by subtracting the cost of feed needed to produce a hundredweight of milk from the price of a hundredweight of milk.
- When the margin falls below a fixed level (sometimes referred to as the "insured margin," farmers collect a payment.
- The basic level of insured margin is \$4, but farmers are permitted to "buy-up" raising the insured margin level, by paying a premium for higher coverage.
- The premium structure has two "tiers" – the cost of insuring the first 5 million pounds of milk (per year) -- Tier I -- is lower than the cost of insuring pounds above the 5 million pound level -- Tier II.

It is likely that the dairy program in the 2018 farm bill will essentially reauthorize the MPP program, under a new name Dairy Risk Coverage Program (DRC or DRCP).

However, in a number of ways the 2018 Farm Bill (incorporating the changes already made in the Bipartisan Budget Act) will make the dairy program more generous, and especially so for smaller dairy farmers (herd sizes of less than 200 or so).

- In the 2014 farm bill the lower (Tier I) premiums applied to coverage under 4 million pounds. That cut off level has now been increased to 5 million pounds.
- The lower Tier I premiums will be significantly lower than those authorized in the 2014 farm bill.
- Tier I coverage can be "bought up" to \$9 in the 2018 bill, compared to \$8 in the 2014 bill.

- Payments under the program will be based on margin calculations each month, rather than on two-month average margins in the 2014 MPP program.

Fewer and fewer dairy farms in Maryland

The trend toward fewer and fewer dairy farms in the state continues. The Maryland Department of Health measure of farms licensed to sell milk has fallen by 45%, from 750 in 2002 to 411 in 2017. Over the same period, milk production has dropped by about 25%. The forces behind these trends – increasing output per cow and increasing cows per farm – will probably continue for the foreseeable future.

Maryland Dairy Farm Numbers and Milk Production.

Year	Number of dairy farms in Maryland	Maryland Milk production (mill. lbs)
2002	750	1301
2003	710	1232
2004	667	1162
2005	649	1161
2006	631	1093
2007	582	1045
2008	561	1029
2009	555	1004
2010	524	999
2011	505	970
2012	496	979
2013	482	972
2014	455	987
2015	443	983
2016	424	956
2017	411	953
2018	380	950 (estimate)

Source: Farm numbers -- Maryland Department of Health
Milk production – quarterly milk production reports (NASS online)

The reduction in numbers of farms comes primarily from consolidation of existing herds. Since 2002, farm numbers have dropped by 40 to 60 percent of the initial level; but milk production has only dropped by a quarter – to 74% of initial level. Or, the same point illustrated differently, total milk production in 2017 was be about the same as in 2011, but with 94 (19 percent) fewer dairy farms.

The decline in the number of Maryland dairy farms is likely to continue at about the same rate over the next year, about 10-20 farms exiting the industry.

Attachment 2
Maryland Licensed Milk Processors

ASTI ICE LLC	1752A APPLETON ROAD	ELKTON	MD	21921	Cecil
ATWATER'S	2905 WHITTINGTON AVE	BALTIMORE	MD	21230	Baltimore City
BROOMS BLOOM DAIRY	1616 S FOUNTAIN GREEN RD	BEL AIR	MD	21015	Harford
BUTLER MANUFACTURING LLC	3150 BALTIMORE BLVD	FINKSBURG	MD	21048	Carroll
CHAPELS COUNTRY CREAMERY	10380 CHAPEL RD	EASTON	MD	21601	Talbot
CHERRY GLEN FARM INC	16120 BARNESVILLE ROAD	BOYDS	MD	20841	Montgomery
CHESAPEAKE BAY DAIRY	4111 WHITESBURG RD	POCOMOKE	MD	21851	Worcester
CLEAR SPRING CREAMERY	14322 ST PAUL RD	CLEAR SPRING	MD	21722	Washington
CLOVER HILL DAIRY	27925 WOODBURN HILL RD	MECHANICSVILLE	MD	20659	Saint Mary's
CLOVERLAND FARMS DAIRY	2701 LOCH RAVEN RD	BALTIMORE	MD	21218	Baltimore City
CROSSROAD COMPANY LLC	208 S PULASKI ST	BALTIMORE	MD	21223	Baltimore City
DAIRY MAID DAIRY LLC	259 E 7TH ST	FREDERICK	MD	21701	Frederick

DUMSERS DAIRYLAND INC	501 S PHILADELPHIA AVE	OCEAN CITY	MD	21842	Worcester
FIREFLY FARMS INC	107 S MAIN ST	ACCIDENT	MD	21520	Garrett
FIRENZES GELATERIA	25 MARKET SPACE	ANNAPOLIS	MD	21401	Anne Arundel
FRUMEX PALETAS	5921 MORAVIA PARK DRIVE, UNIT C-4	BALTIMORE	MD	21206	Baltimore City
HIGH COUNTRY CREAMERY AND MARKET LLC	97 LOCKER LN	GRANTSVILLE	MD	21536	Garrett
ISLAND CREAMERY BERLIN	120 N MAIN ST	BERLIN	MD	21811	Worcester
ITABERCO INC	1900 BAYARD ST STE 110	BALTIMORE	MD	21230	Baltimore City
ITALIAN KITCHEN LTD	4521 KENILWORTH AVE	BLADENSBURG	MD	20722	Prince Georges
KEYES CREAMERY	3712 ALDINO RD	ABERDEEN	MD	21001	Harford
KILBY CREAM	785 FIRETOWER RD	COLORA	MD	21917	Cecil
L & L BAKERY INC	12147 NEBEL ST	ROCKVILLE	MD	20852	Montgomery
LAKESIDE CREAMERY	20282 GARRET HWY	OAKLAND	MD	21550	Garrett
LANCO DAIRY FARMS COOP LLC	14738 WARFORDSBURG ROAD	HANCOCK	MD	21750	Washington
MANY SWEETS INC	1900 BAYARD ST STE 160	BALTIMORE	MD	21230	Baltimore City
MARVA MAID LANDOVER	1805 SOUTH CLUB DR	LANDOVER	MD	20785	Prince Georges
MARYLAND & VIRGINIA MILK PRODUCERS	8321 LEISHEAR RD	LAUREL	MD	20723	Howard
MEADOW MOUNTAIN NUTRITIONAL INC	14500 NATIONAL PIKE	FROSTBURG	MD	21532	Allegany
MICHA SORBET	6 NORTH PARK STREET	ABERDEEN	MD	21001	Harford
MISTY MEADOW FARM CREAMERY	14325 MISTY MEADOW RD	SMITHSBURG	MD	21783	Washington
MOBY DICK HOUSE OF KABOB	3329 75TH AVE	HYATTSVILLE	MD	20785	Prince Georges
NESTLE DREYERS ICE CREAM CO	9090 WHISKEY BOTTOM RD	LAUREL	MD	20723	Prince Georges
NICE FARMS CREAMERY	25786 AUCTION ROAD	FEDERALSBURG	MD	21632	Caroline
NORWOOD ICE CREAM & CANDY CO	7556 MAIN ST	SYKESVILLE	MD	21784	Carroll
OLMO BROS NURSERY & FARM	1704 OLD GENERALS HWY	ANNAPOLIS	MD	21401	Anne Arundel
P A BOWEN FARMSTEAD LLC	15701 DOCTOR BOWEN RD	BRANDYWINE	MD	20613	Prince Georges
POP COUTURE LLC	9631 LIBERTY RD STE H	RANDALLSTOWN	MD	21133	Baltimore

POTOMAC FARMS DAIRY	RACE ST & W IND	CUMBERLAND	MD	21502	Allegany
POTOMAC ICE CREAM LLC	19209 M CHENNAULT WAY	GAITHERSBURG	MD	20879	Montgomery
PRIGEL FAMILY CREAMERY	4852 LONG GREEN RD	GLEN ARM	MD	21057	Baltimore
QUEEN CITY CREAMERY & DELI LLC	108 HARRISON ST	CUMBERLAND	MD	21502	Allegany
SACRED MOUNTAIN LLC DBA MOORENKO'S ICE CREAM	8810 BROOKVILLE ROAD	SILVER SPRING	MD	20910	Montgomery
SAPUTO DAIRY FOODS USA LLC	428 EAST PATRICK STREET	FREDERICK	MD	21701	Frederick
SARFRAZ & SAIF, INC / DBA BADSHAHI KULFI	1520 CATON CENTER DR STE E	HALETHROPE	MD	21227	Baltimore
SCOTTISH HIGHLAND CREAMERY	314 TILGHMAN ST	OXFORD	MD	21654	Talbot
SHEPHERDS MANOR CREAMERY LLC	1126 SLINGLUFF RD	NEW WINDSOR	MD	21776	Carroll
SOUTH MOUNTAIN CREAMERY	8305 BOLIVAR RD	MIDDLETOWN	MD	21769	Frederick
SPRIGGS DELIGHT	6836 TOMMY TOWN RD	SHARPSBURG	MD	21782	Washington
TAHARKA BROTHERS	3515A CLIPPER MILL RD	BALTIMORE	MD	21211	Baltimore City
THE CHARMERY ICE CREAM	1700 W 41ST ST #400	BALTIMORE	MD	21211	Baltimore City
TITO'S ICE CREAM	5351 46TH AVE	HYATTSVILLE	MD	20781	Prince Georges
TOTALLY COOL INC	36-40 GWYNNS MILL CT	OWINGS MILLS	MD	21117	Baltimore
WOODBOURNE CREAMERY	28600 RIDGE RD	MOUNT AIRY	MD	21771	Montgomery
YORK CASTLE ICE CREAM CO INC	6771 MID CITIES AVE	BELTSVILLE	MD	20705	Prince Georges